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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGUYEN, TAM M

ART UNIT PAPER NUMBER

1764

DATE MAILED: 07/18/2003

*S*

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/981,926

Applicant(s)

OVERBEEK ET AL.

Examiner

Tam M. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 8-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Election/Restrictions*

Applicant's election of Group I, claims 1-7, in Paper No. 7 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Kocal (4,746,763).

Kocal discloses a catalytic composition comprising zeolite. From the figure, it is estimated that the amount of ammonia being released from the stronger acidic sites at higher temperatures (e.g., greater 500° C) is about five times the amount of ammonia being release from the weaker acidic sites at lower temperatures (e.g., 150° C). Therefore, the AAI of the zeolite is greater than 1. This is deemed to anticipate the limitation of claim 1. (See the figure; col. 6, lines 23-48)

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Claim 4:

The zeolite has a ratio of silica to alumina of at least 12. This is deemed to anticipate the limitation of claim 4. (See col. 9, lines 56-60)

Claim 5:

The zeolite is ZSM-5. This is deemed to anticipate the limitation of claim 5. (See col. 9, line 62).

Claim 6:

The zeolite is produced by using an organo-nitrogen directing agent (e.g., tetraalkylammonium compound). This is deemed to anticipate the limitation of claim 6. (See col. 10, line 1).

Claims 1, 4 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Butler et al. (6,090,991).

Butler discloses a catalytic composition comprising zeolite. From Table 3, it is estimated the AAI of the zeolite is greater than 1 (e.g.,  $.143 / .05 = 2.86$ ). This is deemed to anticipate the limitation of claim 1. (See table 3).

Claims 4 and 7:

The zeolite has a ratio of silica to alumina greater than 12:1 or 15:1 (e.g., 225). This is deemed to anticipate the limitation of claim 4. (See Table 2)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kocal (4,746,763).

The composition of Kocal is as discussed above.

Kocal does not specifically disclose that the molar ratio of silica to alumina is at least 15:1. However, Kocal discloses that the ratio of silica to alumina is at least 12:1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Kocal by utilizing a zeolite having the ratio of silica to

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alumina of at least 15:1 because one of skill in the art would employ a zeolite having any ratio of silica to alumina which is greater than 12:1 including 15:1 in the process of Kocal.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kocal (4,746,763) in view of Yao et al. (5,895,828).

Regarding claims 2 and 3, Kocal does not specifically disclose that the zeolite has an average pore diameter greater than 100 Angstroms and a pore volume greater than  $0.7 \text{ cm}^3/\text{g}$ . However, Yao discloses a zeolite having a pore volume in the range of from about 0.4 to about  $0.8 \text{ ml/g}$  ( $1 \text{ ml/g} = 1 \text{ cm}^3/\text{g}$ ) and an average pore diameter in the range of from about 70 to 300 Angstroms (see Yao; col. 2, lines 38-42). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Kocal by using a zeolite having an average pore diameter and pore volume as taught by Yao because the average pore diameter and the pore volume are not critical components of the Kocal zeolite. Hence, one of skill in the art would use any average pore diameter and any pore volume including the average pore diameter and pore volume of Yao in the process of Kocal.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam M. Nguyen whose telephone number is (703) 305-7715. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 703-308-6824. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 305-5408 for regular communications and (703) 305-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Tam M. Nguyen  
Examiner  
Art Unit 1764

TN  
July 14, 2003